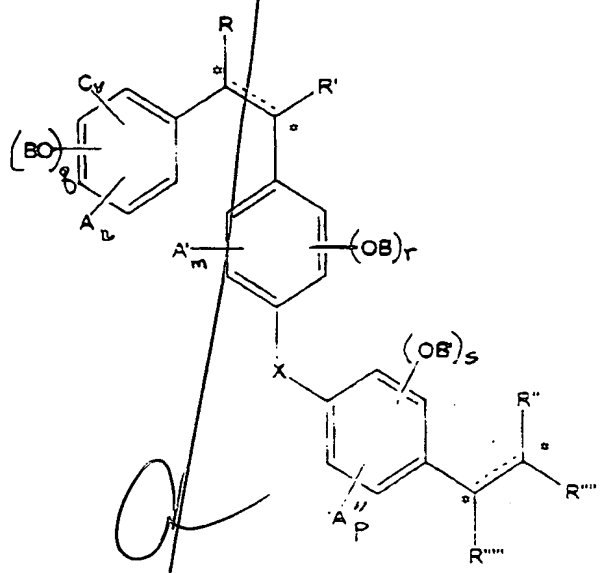
What is claimed is:

1. A compound of the formula I:



(I)

wherein stereocenters * are R or S;

dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

R and R' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups that may be substituted, or functional groups like $COOR_3$, where R_3 = H or C_1-C_{20} linear or branched alkyl or C_5-C_{20} aryl; $CONR_1R_2$, where R_1 and R_2 may be independently or together H, linear or branched C_1-C_{20} alkyl or C_5-C_{20} aryl, NH_2, OH, C_1-C_{20} linear or branched alkoxy, halo, cyano, or R+R'=O.

A, A', A'', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, linear or branched C_1-C_{20} alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkylamino, C_1-C_{20} alkylcarboxylamino, C1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and n, m, and p are independently integers from 0 to 3;

B, B', and B" are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkyl carboxyl amino, C_1.C_{20} carbalkoxy; aroyl, araalkanoyl, carboxyl, cyano, halo, hydroxy; and q, r and s are independently integers from 1 to 3;

R''', R'''' and R''''' are independently H, C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, or cyano.

X = NH, O, S, S=O, or SO_2.

2. A compound according to Claim 1 wherein C and A are hydrogen.

3. A compound according to Claim 2 wherein q=2 and B is methyl.

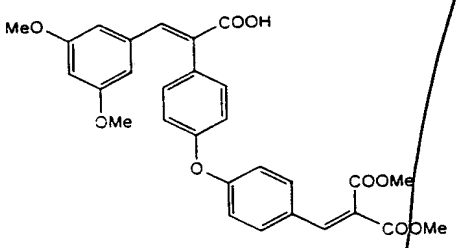
4. A compound according to Claim 1 wherein A' is hydrogen and r = O.

5. A compound according to Claim 1 wherein A" is hydrogen and s = O.

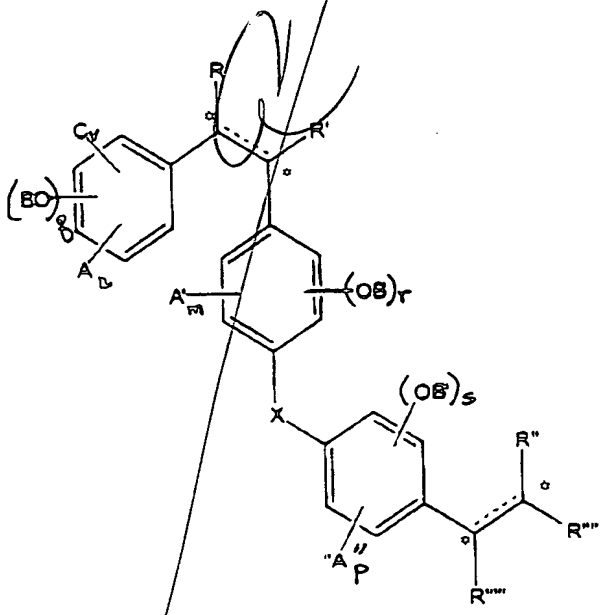
6. A compound according to Claim 1 wherein R is hydrogen and R' is $-COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

7. A compound according to Claim 1 wherein X is oxygen; R'''' is hydrogen; and R''' and R'''' are independently $-COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

8. The compound according to Claim 1 of the formula:



9. A pharmaceutical composition containing a blood glucose lowering effective amount of a compound of formula I in a pharmaceutically acceptable carrier.



(I)

wherein stereocenters * are R or S;

dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

R and R' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups that may be substituted, or functional groups like $COOR_3$, where R_3 = H or C_1-C_{20} linear or branched alkyl or C_5-C_{20} aryl; $CONR_1R_2$, where R_1 and R_2 may be independently or together H, linear or branched C_1-C_{20} alkyl or C_5-C_{20} aryl, NH_2, OH, C_1-C_{20} linear or branched alkoxy, halo, cyano, or R+R'=O.

A, A', A'', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, linear or branched C_1-C_{20} alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkylamino, C_1-C_{20} alkylcarboxylamino, C1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and n, m, and p are independently integers from 0 to 3;

B, B', and B" are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkyl carboxyl amino, C_1-C_{20} carbalkoxy; aroyl, araalkanoyl, carboxyl, cyano, halo, hydroxy; and q, r and s are independently integers from 1 to 3;

R''', R'''' and R''''' are independently H, C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, or cyano.
X = NH, O, S, S=O, or SO_2.

10. A composition according to Claim 9 wherein C and A are hydrogen.

11. A composition according to Claim 10 wherein q=2 and B is methyl.

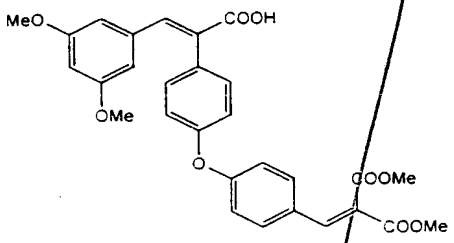
12. A composition according to Claim 9 wherein A' is hydrogen and r = O.

13. A composition according to Claim 9 wherein A" is hydrogen and s = O.

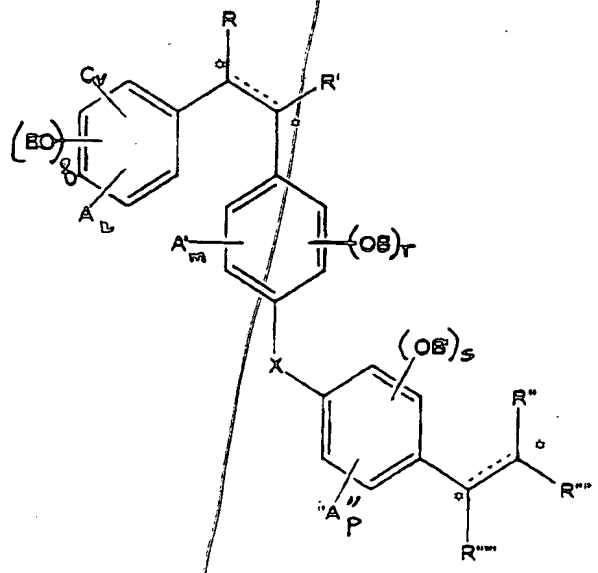
14. A composition according to Claim 9 wherein R is hydrogen and R' is – $COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

15. A composition according to Claim 9 wherein X is oxygen; R"" is hydrogen; and R"' and R"" are independently -$COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

16. The composition according to Claim 9 wherein the compound comprises:



17. A method for lowering blood glucose in a subject comprising administering to said subject an effective blood glucose lowering amount of a composition containing a compound of the formula I in a pharmaceutically acceptable carrier.



(I)

wherein stereocenters * are R or S;

dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

R and R' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups that may be substituted, or functional groups like $COOR_3$, where R_3 = H or C_1-C_{20} linear or branched alkyl or C_5-C_{20} aryl; $CONR_1R_2$, where R_1 and R_2 may be independently or together H, linear or branched C_1-C_{20} alkyl or C_5-C_{20} aryl, NH_2, OH, C_1-C_{20} linear or branched alkoxy, halo, cyano, or R+R'=O.

A, A', A'', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, linear or branched C_1-C_{20} alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkylamino, C_1-C_{20} alkylcarboxylamino, C1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and n, m, and p are independently integers from 0 to 3;

B, B', and B" are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkyl carboxyl amino, C_1-C_{20} carbalkoxy; aroyl, araalkanoyl, carboxyl, cyano, halo, hydroxy; and q, r and s are independently integers from 1 to 3;

R''', R'''' and R''''' are independently H, C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, or cyano.

X = NH, O, S, S=O, or SO_2.

18. A method according to Claim 17 wherein C and A are hydrogen.

19. A method according to Claim 18 wherein q=2 and B is methyl.

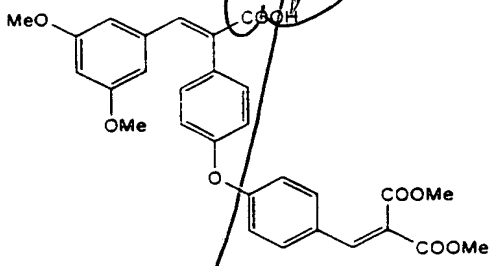
20. A method according to Claim 17 wherein A' is hydrogen and r = O.

21. A method according to Claim 17 wherein A" is hydrogen and s = O.

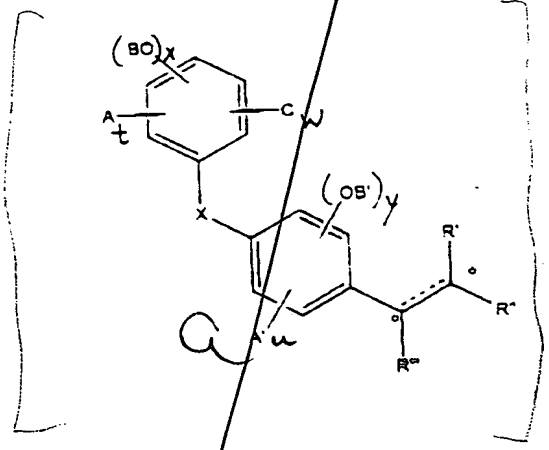
22. A method according to Claim 17 wherein R is hydrogen and R` is –$COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

23. A method according to Claim 17 in formula I wherein X is oxygen; R"" is hydrogen; and R"` and R"" are independently -$COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

24. The method according to Claim 17 wherein said compound comprises:



25. A compound of the formula II:



(II)

wherein stereocenters * are R or S;

dotted lines indicates that a double bond may be present or absent, and the double bond geometry may be E or Z;

A, A', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20}

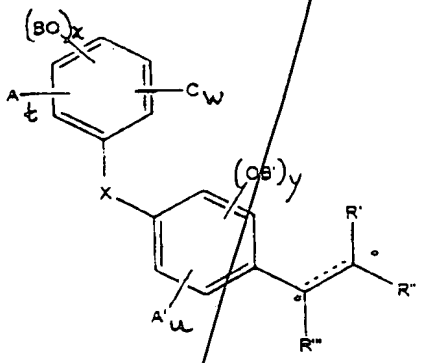
alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and t, u, and w are independently integers from 0 to 3;

B and B' are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} alkanoyl, C_1-C_{20} alkenoyl, C_1-C_{20} alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_6-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and x and y are independently integers from 0 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo or cyano.

X = NH, O, S, S=O, or SO_2

26. A pharmaceutically composition containing a blood glucose lowering effective amount of a compound of the formula II in a pharmaceutically acceptable carrier.



(II)

wherein stereocenters * are R or S;

dotted lines indicates that a double bond may be present or absent, and the double bond geometry may be E or Z;

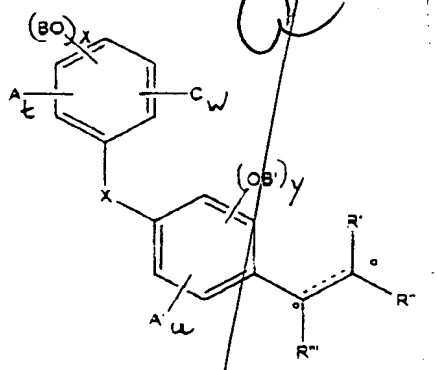
A, A', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and t, u, and w are independently integers from 0 to 3;

B and B' are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} alkanoyl, C_1-C_{20} alkenoyl, C_1-C_{20} alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_6-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and x and y are independently integers from 0 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo or cyano.

X = NH, O, S, S=O, or SO_2

27. A method for lowering blood glucose in a subject comprising administering to said subject an effective blood glucose lowering amount of a composition of the formula II.



(II)

wherein stereocenters * are R or S;

dotted lines indicates that a double bond may be present or absent, and the double bond geometry may be E or Z;

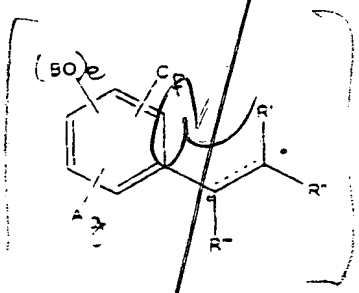
A, A', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and t, u, and w are independently integers from 0 to 3;

B and B' are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} alkanoyl, C_1-C_{20} alkenoyl, C_1-C_{20} alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_6-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and x and y are independently integers from 0 to 3:

R', R'', and R''' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo or cyano.

X = NH, O, S, S=O, or SO_2

28. A compound of the formula III.



(III)

wherein stereocenters (designated by *) could be R- or S-.

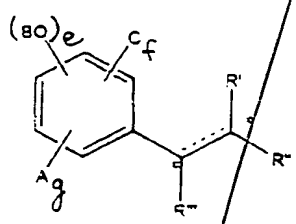
dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

A and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; thiol, SOR or SOR_2; and f and g are independently integers from 0 to 3;

B is independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_5-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and e is an integer from 1 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear and branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, cyano.

29. A pharmaceutically composition containing a blood glucose lowering effective amount of a compound of the formula III in a pharmaceutically acceptable carrier.



(III)

wherein stereocenters (designated by *) could be R- or S-.

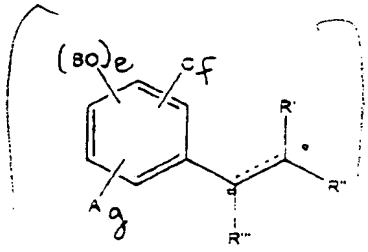
dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

A and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; thiol, SOR or SOR_2; and f and g are independently integers from 0 to 3;

B is independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_5-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and e is an integer from 1 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear and branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, cyano.

30. A method for lowering blood glucose in a subject comprising administering to said subject an effective blood glucose lowering amount of a composition of the formula III.



(III)

wherein stereocenters (designated by *) could be R- or S-.

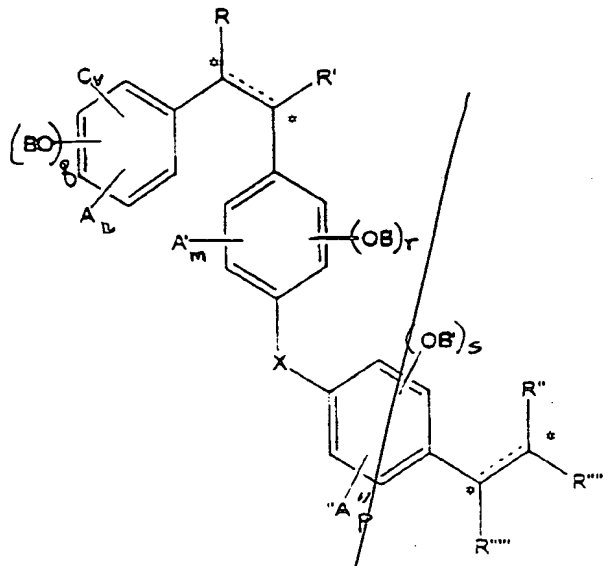
dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

A and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; thiol, SOR or SOR_2; and f and g are independently integers from 0 to 3;

B is independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_5-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and e is an integer from 1 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear and branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, cyano.

31. A pharmaceutical composition containing a serum triglyceride lowering effective amount of a compound of formula I in a pharmaceutically acceptable carrier.



(I)

wherein stereocenters * are R or S;

dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

R and R' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups that may be substituted, or functional groups like $COOR_3$, where R_3 = H or C_1-C_{20} linear or branched alkyl or C_5-C_{20} aryl; $CONR_1R_2$, where R_1 and R_2 may be independently or together H, linear or branched C_1-C_{20} alkyl or C_5-C_{20} aryl, NH_2, OH, C_1-C_{20} linear or branched alkoxy, halo, cyano, or R+R'=O.

A, A', A'', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, linear or branched C_1-C_{20} alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkylamino, C_1-C_{20} alkylcarboxylamino, C1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and n, m, and p are independently integers from 0 to 3;

B, B', and B" are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkyl carboxyl amino, C_1.C_{20} carbalkoxy; aroyl, araalkanoyl, carboxyl, cyano, halo, hydroxy; and q, r and s are independently integers from 1 to 3;

R''', R'''' and R''''' are independently H, C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents. COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, or cyano.
X = NH, O, S, S=O, or SO_2.

32. A composition according to Claim 31 wherein C and A are hydrogen.

33. A composition according to Claim 32 wherein q=2 and B is methyl.

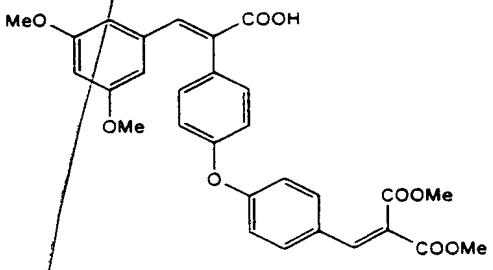
34. A composition according to Claim 31 wherein A' is hydrogen and r = o.

35. A composition according to Claim 31 wherein A" is hydrogen and s = o.

36. A composition according to Claim 31 wherein R is hydrogen and R' is –$COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

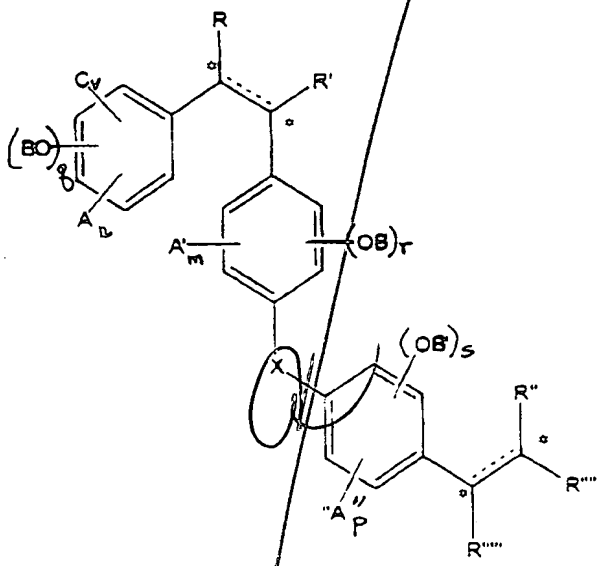
37. A composition according to Claim 31 wherein X is oxygen; R'''' is hydrogen; and R''' and R'''' are independently -$COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

38. The composition according to Claim 31 wherein the compound comprises:



39. A method for lowering serum triglyceride in a subject comprising administering to said subject an effective serum triglyceride lowering amount of a

composition containing a compound of the formula I in a pharmaceutically acceptable carrier.



(I)

wherein stereocenters * are R or S;

dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

R and R' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups that may be substituted, or functional groups like $COOR_3$, where R_3 = H or C_1-C_{20} linear or branched alkyl or C_5-C_{20} aryl; $CONR_1R_2$, where R_1 and R_2 may be independently or together H, linear or branched C_1-C_{20} alkyl or C_5-C_{20} aryl, NH_2, OH, C_1-C_{20} linear or branched alkoxy, halo, cyano, or R+R'=O.

A, A', A'', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, linear or branched C_1-C_{20} alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkylamino, C_1-C_{20} alkylcarboxylamino, C1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and n, m, and p are independently integers from 0 to 3;

B, B', and B" are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkyl carboxyl amino, C_1-C_{20} carbalkoxy; aroyl, araalkanoyl, carboxyl, cyano, halo, hydroxy; and q, r and s are independently integers from 1 to 3;

R''', R'''' and R''''' are independently H, C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, or cyano.

X = NH, O, S, S=O, or SO_2.

40. A method according to Claim 39 wherein C and A are hydrogen.

41. A method according to Claim 40 wherein q=2 and B is methyl.

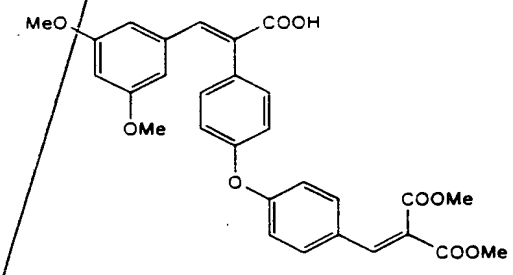
42. A method according to Claim 39 wherein A' is hydrogen and r = O.

43. A method according to Claim 39 wherein A" is hydrogen and s = O.

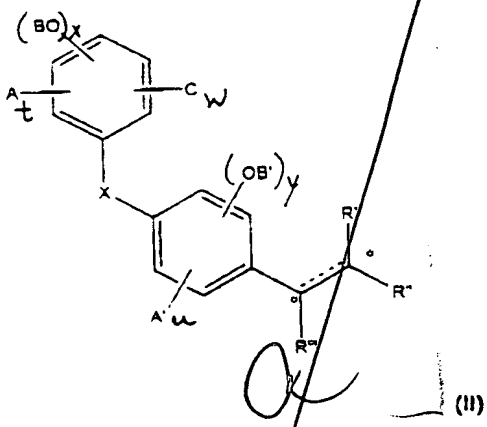
44. A method according to Claim 39 wherein R is hydrogen and R' is $-COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

45. A method according to Claim 39 in formula I wherein X is oxygen; R'''' is hydrogen; and R''' and R'''' are independently $-COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

46. The method according to Claim 39 wherein said compound comprises:



47. A pharmaceutically composition containing a serum triglyceride lowering effective amount of a compound of the formula II in a pharmaceutically acceptable carrier.



(II)

wherein stereocenters * are R or S;

dotted lines indicates that a double bond may be present or absent, and the double bond geometry may be E or Z;

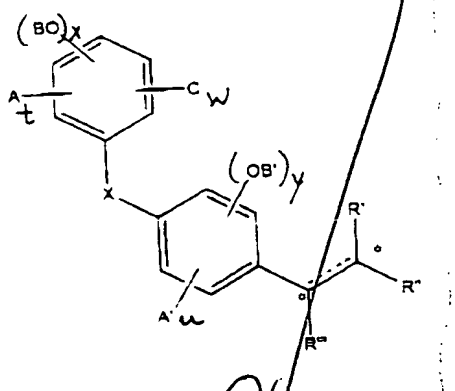
A, A', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and t, u, and w are independently integers from 0 to 3;

B and B' are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} alkanoyl, C_1-C_{20} alkenoyl, C_1-C_{20} alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_6-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and x and y are independently integers from 0 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo or cyano.

X = NH, O, S, S=O, or SO_2

48. A method for lowering serum triglyceride in a subject comprising administering to said subject an effective serum triglyceride lowering amount of a composition of the formula II.



(II)

wherein stereocenters * are R or S;

dotted lines indicates that a double bond may be present or absent, and the double bond geometry may be E or Z;

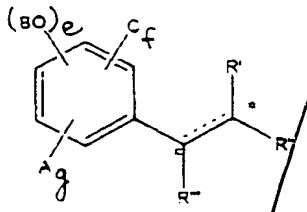
A, A', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and t, u, and w are independently integers from 0 to 3;

B and B' are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} alkanoyl, C_1-C_{20} alkenoyl, C_1-C_{20} alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_6-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and x and y are independently integers from 0 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo or cyano.

X = NH, O, S, S=O, or SO_2

49. A pharmaceutically composition containing a serum triglyceride lowering effective amount of a compound of the formula III in a pharmaceutically acceptable carrier.



(III)

wherein stereocenters (designated by *) could be R- or S-.

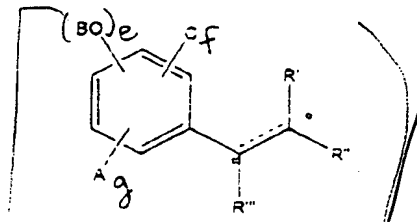
dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

A and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; thiol, SOR or SOR_2; and f and g are independently integers from 0 to 3;

B is independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_5-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and e is an integer from 1 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear and branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, cyano.

50. A method for lowering serum triglyceride in a subject comprising administering to said subject an effective serum triglyceride lowering amount of a composition of the formula III.



(III)

wherein stereocenters (designated by *) could be R- or S-.

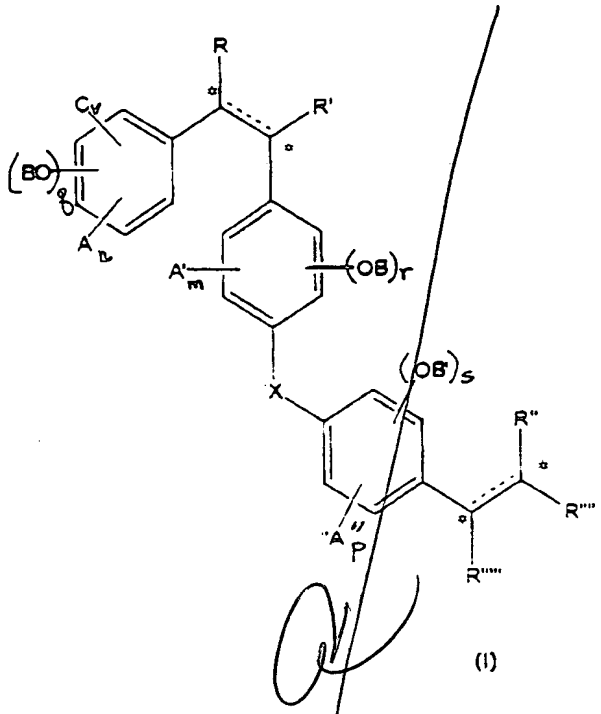
dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

A and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; thiol, SOR or SOR_2; and f and g are independently integers from 0 to 3;

B is independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_5-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and e is an integer from 1 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear and branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, cyano.

51. A pharmaceutical composition containing a blood pressure lowering effective amount of a compound of formula I in a pharmaceutically acceptable carrier.



(I)

wherein stereocenters * are R or S;

dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

R and R' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups that may be substituted, or functional groups like $COOR_3$, where R_3 = H or C_1-C_{20} linear or branched alkyl or C_5-C_{20} aryl; $CONR_1R_2$, where R_1 and R_2 may be independently or together H, linear or branched C_1-C_{20} alkyl or C_5-C_{20} aryl, NH_2, OH, C_1-C_{20} linear or branched alkoxy, halo, cyano, or R+R'=O.

A, A', A'', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, linear or branched C_1-C_{20} alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkylamino, C_1-C_{20} alkylcarboxylamino, C1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and n, m, and p are independently integers from 0 to 3;

B, B', and B" are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkyl carboxyl amino, C_1-C_{20} carbalkoxy; aroyl, araalkanoyl, carboxyl, cyano, halo, hydroxy; and q, r and s are independently integers from 1 to 3;

R''', R'''' and R''''' are independently H, C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, or cyano.
X = NH, O, S, S=O, or SO_2.

52. A composition according to Claim 51 wherein C and A are hydrogen.

53. A composition according to Claim 52 wherein q=2 and B is methyl.

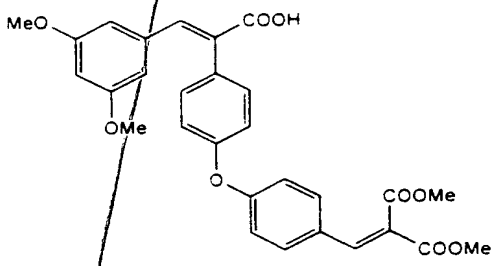
54. A composition according to Claim 51 wherein A' is hydrogen and r = O.

55. A composition according to Claim 51 wherein A" is hydrogen and s = O.

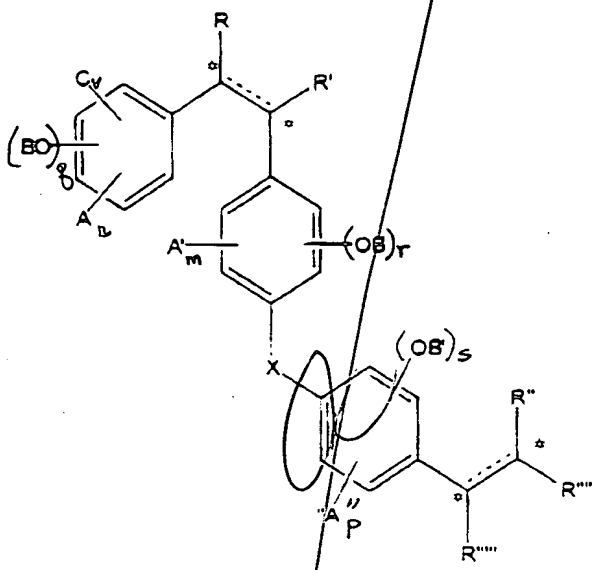
56. A composition according to Claim 51 wherein R is hydrogen and R' is –$COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

57. A composition according to Claim 51 wherein X is oxygen; R'''' is hydrogen; and R''' and R'''' are independently -$COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

58. The composition according to Claim 51 wherein the compound comprises:



59. A method for lowering blood pressure in a subject comprising administering to said subject an effective blood pressure lowering amount of a composition containing a compound of the formula I in a pharmaceutically acceptable carrier.



(I)

wherein stereocenters * are R or S;

dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

R and R' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups that may be substituted, or functional groups like $COOR_3$, where R_3 = H or C_1-C_{20} linear or branched alkyl or C_5-C_{20} aryl; $CONR_1R_2$, where R_1 and R_2 may be independently or together H, linear or branched C_1-C_{20} alkyl or C_5-C_{20} aryl, NH_2, OH, C_1-C_{20} linear or branched alkoxy, halo, cyano, or R+R'=O.

A, A', A'', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, linear or branched C_1-C_{20} alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkylamino, C_1-C_{20} alkylcarboxylamino, C1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and n, m, and p are independently integers from 0 to 3;

B, B', and B" are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy; C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkyl carboxyl amino, C_1-C_{20} carbalkoxy; aroyl, araalkanoyl, carboxyl, cyano, halo, hydroxy; and q, r and s are independently integers from 1 to 3;

R''', R'''' and R''''' are independently H, C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, or cyano.
X = NH, O, S, S=O, or SO_2.

60. A method according to Claim 59 wherein C and A are hydrogen.

61. A method according to Claim 60 wherein q=2 and B is methyl.

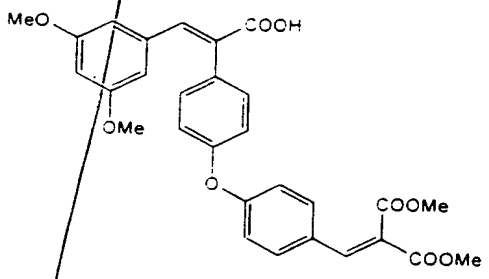
62. A method according to Claim 59 wherein A' is hydrogen and r = O.

63. A method according to Claim 59 wherein A" is hydrogen and s = O.

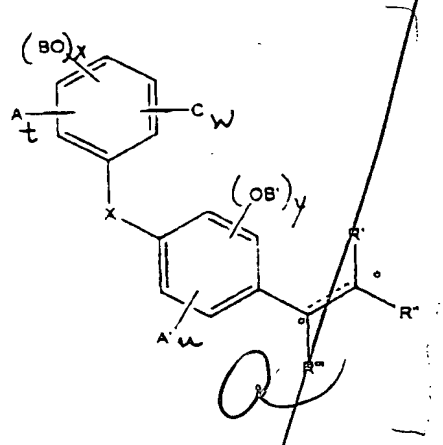
64. A method according to Claim 59 wherein R is hydrogen and R' is $-COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

65. A method according to Claim 59 in formula I wherein X is oxygen; R'''' is hydrogen; and R''' and R'''' are independently $-COOR_3$, wherein R_3 is hydrogen, a cation, C_1-C_{10} alkyl or C_5-C_{10} aryl.

66. The method according to Claim 59 wherein said compound comprises:



67. A pharmaceutically composition containing a blood pressure lowering effective amount of a compound of the formula II in a pharmaceutically acceptable carrier.



(II)

wherein stereocenters * are R or S;

dotted lines indicates that a double bond may be present or absent, and the double bond geometry may be E or Z;

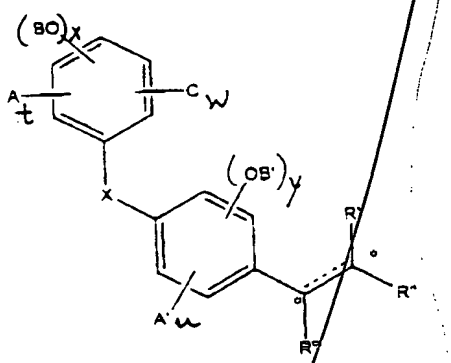
A, A', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and t, u, and w are independently integers from 0 to 3;

B and B' are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} alkanoyl, C_1-C_{20} alkenoyl, C_1-C_{20} alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_6-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and x and y are independently integers from 0 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo or cyano.

X = NH, O, S, S=O, or SO_2

68. A method for lowering blood pressure in a subject comprising administering to said subject an effective blood pressure lowering amount of a composition of the formula II.



(II)

wherein stereocenters * are R or S;

dotted lines indicates that a double bond may be present or absent, and the double bond geometry may be E or Z;

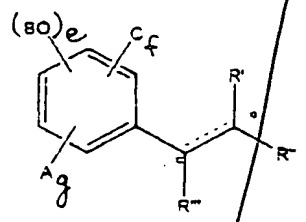
A, A', and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; and t, u, and w are independently integers from 0 to 3;

B and B' are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} alkanoyl, C_1-C_{20} alkenoyl, C_1-C_{20} alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_6-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and x and y are independently integers from 0 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear or branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo or cyano.

X = NH, O, S, S=O, or SO_2

69. A pharmaceutically composition containing a blood pressure lowering effective amount of a compound of the formula III in a pharmaceutically acceptable carrier.



(III)

wherein stereocenters (designated by *) could be R- or S-.

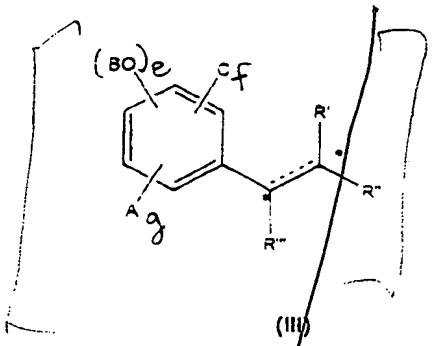
dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

A and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; thiol, SOR or SOR_2; and f and g are independently integers from 0 to 3;

B is independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_5-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and e is an integer from 1 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear and branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, cyano.

70. A method for lowering blood pressure in a subject comprising administering to said subject an effective blood pressure lowering amount of a composition of the formula III.



(III)

wherein stereocenters (designated by *) could be R- or S-.

dotted lines indicate that a double bond may be present or absent, and the double bond geometry may be E or Z;

A and C are independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy, C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy; carboxyl, cyano, halo, hydroxy; thiol, SOR or SOR_2; and f and g are independently integers from 0 to 3;

B is independently H, C_1-C_{20} acylamino, C_1-C_{20} acyloxy; C_1-C_{20} linear or branched alkanoyl, C_1-C_{20} linear or branched alkenoyl, C_1-C_{20} linear or branched alkenyl, C_1-C_{20} alkoxycarbonyl, C_1-C_{20} linear or branched alkoxy, C_1-C_{20} linear or branched alkyl amino, C_1-C_{20} alkylcarboxylamino, C_1-C_{20} carbalkoxy, C_5-C_{20} aroyl, C_6-C_{20} araalkanoyl, carboxyl, cyan, halo, hydroxy; and e is an integer from 1 to 3;

R', R'', and R''' are independently H or C_1-C_{20} linear and branched alkyl or alkenyl groups which may contain substituents, COOH, C_1-C_{20} alkoxycarbonyl, NH_2, $CONH_2$, C_1-C_{20} acylamino, C_1-C_{20} alkoxycarbonyl, OH, C_1-C_{20} alkoxy, halo, cyano.